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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WANG, JIN-CHENG

ART UNIT PAPER NUMBER

2672

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/660,187

Applicant(s)

ITO, MASAOKI

Examiner

Jin-Cheng Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The preliminary amendment filed on 9/12/2000 has been entered. Claims 9-12 have been amended.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 5 recites "said counter means" which lacks an antecedent basis in the claim. Claims 7 and 8 recite "said plurality of consecutive memory blocks" which lacks an antecedent basis in the claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5, 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claims 5 recites "said counter means" which lacks an antecedent basis in the claim. Claims 7 and 8 depend upon claim 5 and they are indefinite because they do not correct the indefiniteness of claim 5.

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(b) Claims 7 and 8 recite "said plurality of consecutive memory blocks" which lacks an antecedent basis in the claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-4, 6, 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Isowaki U.S. Patent No. 6,417,854.

7. Claim 1:

The Isowaki reference has taught a game device comprising a video block 11 receiving data from a storage means such as CD-ROM prior to image processing background data for displaying a moving object in three-dimensional virtual space (column 4, lines 11-67 and column 5, lines 1-67). The Isowaki reference has also taught a game device with pre-reading means for pre-reading background data from storage means such as CD-ROM and texture data of pertinent blocks are formed in advance in ROM and transferred to the block area of the texture memory

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(column 5, lines 54-67, and column 6, lines 6-30). The Office interprets pre-reading means for pre-reading background data as means for reading background data in advance. The Isowaki reference has taught a visual field limit line in figures 14 and 15 in which texture data of pertinent blocks are read in advance from ROM to the texture memory and fetching of a background screen texture is commensurate with the velocity of the movable object (column 12, lines 2-29). Therefore, the Office interprets that, at a pre-determined range of vehicular speed, the fetching of a background screen texture in advance from ROM relative to the background screen texture in memory 132 or currently under display in TV receiver 5 sets a reference line at a distance position in a specified distance away from the limit line of the visual field direction of display as taught in figures 14 and 15 of the Isowaki reference.

Claim 2:

The claim 2 encompasses the same scope of invention as that of the claim 1 except additional claimed limitation of storage means and pre-reading means. However, the Isowaki reference further discloses claimed limitation of storage means and pre-reading means. The Isowaki reference has taught storage means storing background texture data by dividing it into block areas of texture memory in advance (column 6, lines 2-30, figure 4, and column 7, lines 7-30) and pre-reading means comprising judging means for determining (judging) which area AR the vehicle is crossing and texture transfer should be performed in accordance to the vehicular moving speed (figure 12, and column 10, lines 44-67). The Isowaki reference has also taught reading means for reading in texture memory the background data (micro-texture data) of the area determined (judged) as being crossed with by the determining (judging) means in accordance to the velocity region (see for example, column 11, lines 1-21).

Claim 3:

The Isowaki reference has taught a game device wherein plurality of areas (AR1, AR2, ..., AR6) are respectively stored in storage means by dividing the display data 210 into 6 blocks BLK1-BLK6 that correspond to areas AR1-AR6 (column 7, lines 1-30). The Isowaki reference has taught display data is divided into 6 blocks and it can be divided into as many blocks as capacity allows (column 7, lines 1-30). The Isowaki reference has also taught reading means for reading in texture memory blocks the background data of AR1-AR6 in memory blocks BLK1-BLK6 in accordance with the amount of its data (column 7, lines 1-30).

Claim 4:

The claim 4 encompasses the same scope of the invention as that of the claim 3 except additional claimed limitation of "reading means includes means for judging whether the work memory block is a vacant space or not." However, the Isowaki reference further discloses reading means includes means for judging whether the work memory block is a vacant space or not (figure 4).

Claim 6:

The Isowaki reference has taught a game device wherein reading means includes determining means for determining a plurality of memory blocks (5 micro-textures) when background data to be stored requires, say, 5 memory blocks (column 10, lines 44-67).

Claim 9:

The Isowaki reference has taught a game device wherein moving object such as a vehicle moves within three-dimensional virtual space (column 5, lines 54-67).

Claim 10:

The Isowaki reference has taught a sudden change of direction of travel (column 10, lines 3-11) and processing means for enabling the detection of the direction of movement and amount of movement of a movable object (column 2, lines 59-67). The Isowaki reference has also taught a game device wherein background data is landform data because the first texture is a picture of a moving road surface when a movable object is in a traveling state (column 2, lines 36-54).

Claim 11:

The claim 11 encompasses the same scope of the invention as that the claims 1 and 9. Therefore, the claim 11 is rejected for the same reason as the claims 1 and 9.

Claim 12:

The claim 12 encompasses the same scope of the invention as that of the claims 1-10 except additional claimed limitation of information recording medium. The Isowaki reference has taught the information recording medium such as a ROM cartridge, CD-ROM and floppy disk (column 5, lines 54-67).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isowaki U.S. Patent No. 6,417,854.

(a) The claims 5, 7 and 8 encompasses the same scope of invention as that of claim 4 except additional claimed limitation of counting means for memory blocks in a variety of forms.

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As noted above, the Isowaki reference discloses a game device for processing background data and displaying a moving object in three-dimensional virtual space. The Isowaki reference has taught judging means for determining (judging) which area AR the vehicle is crossing and texture transfer should be performed in accordance to the vehicular moving speed (figure 12, and column 10, lines 44-67) and reading means for reading in texture memory the background data (micro-texture data) of the area determined (judged) as being crossed with by the determining (judging) means in accordance to the velocity region (see for example, column 11, lines 1-21).

(b) However, the reference does not explicitly disclose a counting means for detecting whether the moving object exists within the respective areas equivalent to memory blocks storing background data.

(c) It is noted that applicant failed to give critical reasons for the use of a series of the count values or the use of counting means in the image processing game device.

(d) Nevertheless, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated a counting means in the Isowaki's high-speed three-dimensional game device because such a construction is rather conventional.

(e) Such modification would have been required for determining the usage status of the memory blocks as suggested by Isowaki by implicitly disclosing a determining means to determine texture memory to be read from memory blocks (e.g., column 11, lines 1-21) thereby suggesting the obvious modification.

(f) One having the ordinary skill in the art would be motivated to do this because determining the usage numbers of the memory blocks would allow a selection of certain memory blocks to be used when the car or a moving object is moving in different area numbers.

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Mizumoto U.S. Patent No. 6,409,597 discloses a video game machine including a rendering unit to set a position of a viewpoint when a player's car is displayed in a game screen on a monitor.

b. Inoune U.S. Patent No. 6,217,445 discloses a driving game machine including an image display processor for displaying on a display monitor a real-time three-dimensional image.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213.

The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

jcw
November 5, 2002



MICHAEL RAZAVI
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